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EXAMINER	
DESIR, PIERRE LOUIS	
ART UNIT	**PAPER NUMBER**
2681	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/635,940	HULL ET AL.	
	Examiner	Art Unit	
	Pierre-Louis Desir	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *Dec. 09, 2004*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. Claims 1, 4-5, 12-15, 17-26, 28-29, 37-39, 41-49 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5-20, 22-33 of copending Application No. 10/635940. Although the conflicting claims are not identical, they are not patentably distinct from each other because the conflicting claims have not in fact been patented.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-16, 23-40, 47-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Kabala, U.S. Patent No. 6539393.

Regarding claim 1, Kabala discloses a method of providing information about a real-world space, comprising the steps of: (a) as the or each of at least one user moves through said space, virtual markers are deposited and stored to indicate associated locations visited by the user in the space (i.e., when each attendee walks or attends different booths of the trade show,

transceivers in each booth receives identification code of the badge carried by the attendee. The identification information, the signal strength of the signals received from the badges, are forwarded by the transceivers to the central processor to process and sort the information into which of the transceivers were visited by the badge) (see fig. 1, col. 4, lines 52-63), the virtual markers each having an initial strength value (i.e., attendee walks or attends the booth as different times which inherently will cause the virtual markers to have an initial strength value); (b) the strength values associated with the stored markers, either taken in location-dependent aggregations or individually (i.e., signal strength of the signals received from the badges are forwarded by the transceivers to the central processor) (see col. 4, lines 57-59), are caused to decay with time (see fig. 1, col. 4, lines 63-67); (c) data about the current strength of the stored markers, either in aggregation or individually, is used to provide information relevant to use of the space (see col. 7, lines 63-67).

Regarding claim 2, Kabala discloses a method (see claim 1 rejection) wherein the virtual markers are individually stored in step (a) (i.e., the transceivers in each booth received (and inherently stored) the signal strength of the signals received from the badges (col. 4, lines 53-59) and individually decayed in step (b) (see col. 4, lines 57-59), the current strength values of the individual markers being aggregated for use in step (c) on a location dependent basis (see col. 7, lines 63-67).

Regarding claim 3, Kabala discloses a method (see claim 1 rejection) wherein each newly-deposited virtual marker is aggregated on a location-dependent basis with previously-deposited virtual markers by having its initial strength value aggregated with an existing aggregated strength value, if any, for the previously-deposited markers associated with the same

location as the newly-deposited marker, this aggregation constituting, or being effected at the same time as, storage of the newly-deposited marker (i.e., the booths 180 and 190 each has multiple transceivers disposed in respective booths to better discriminate visits by show attendees to different products displayed at their booths. For example, at booth 180 transceivers 180 to 184 are used to cover four different products. As such, when the attendees view a product, he typically faces the product and transmissions from his badge on the name tag are received by the respective transceiver disposed proximal to that product. The transceivers send the signal strength received from the badge transmissions. If multiple transceivers report receiving the same badge ID code, the signal strength indication could be used to better discriminate the location of the attendee) (see col. 5, lines 40-57); step (b) being applied to the aggregated strength values (see col. 4, lines 57-59).

Regarding claim 4, Kabala discloses a method (see claim 3 rejection) wherein a plurality of storage location cells are provided that each corresponds to a respective area of said space and holds the aggregated strength value for markers deposited in locations within that area (i.e., a plurality of transceivers modules cover different areas) (see fig. 2, col. 7, lines 22-24), each marker being stored and aggregated by having its initial strength value added to the existing aggregated strength value stored in the location cell that corresponds to the area covering the location associated with the marker (i.e., the transceivers in each booth received the signal strength of the signals received from the badges (col. 4, lines 53-59); also, the portable transceivers collect the identification code, which includes the signal strength, of the attendees that are attending the booth of the trade show (see abstract)).

Regarding claim 5, Kabala discloses a method (see claim 4 rejection) wherein the storage and aggregation of a said marker involves, in addition to increasing the aggregated strength value of the corresponding location cell by the initial strength value of the marker (see claim 4 rejection), increasing by a lesser amount the stored strength value of at least one location cell covering a said area adjacent to the area covering the location associated with the marker (i.e., the signal strength information is used to decipher which of the neighboring transceivers received a stronger transmission from the same badge. Central processor interprets the stronger signal strength level information as the closer of the two transceivers to the attendee) (see col. 5, lines 18-21).

Regarding claim 6, Kabala discloses a method (see claim 1 rejection), wherein step (b) is effected independently of step (c) (i.e., signal strength of the signals received from the badges are forwarded by the transceivers to the central processor) (see col. 4, lines 57-59). And, the identification codes are forwarded to a central processor to determine and list the places visited and times of the visits (see abstract). Thus, whether or not the virtual markers strength decay or decrease would have no effect on the identification being collected to provide information about the use of the space.

Regarding claim 7, Kabala discloses a method (see claim 1 rejection) wherein step (b) is effected as a preliminary to carrying out step (c) (i.e., signal strength of the signals received from the badges are forwarded by the transceivers to the central processor) (see col. 4, lines 57-59). And, the identification codes are forwarded to a central processor to determine and list the places visited and times of the visits (see abstract). Thus, one skilled in the art would immediately envision that as new information is being collected, old information is being replaced by the new

acquired virtual markers information, which will cause a decay or decrease in the previously acquired information, which in turn will cause the new information acquired from the virtual markers to be used in providing information about the used of the space.

Regarding claim 8, Kabala discloses a method (see claim 1 rejection) wherein in step (b) the strength values are decayed by a fixed amount per unit time (i.e., the central processor determines from the signals received from the transceivers the time the identification codes were received, by which transceivers, and the durations of receipt of the same identification code by each transceiver. Thus, one skilled in the art would unhesitatingly conceptualize that as the central processor receives new information, previously received information (as related to signal strength) is being decayed or decreases as related to time of receipt) (see col. 2, lines 27-31).

Regarding claim 9, Kabala discloses a method (see claim 1 rejection) wherein in step (b) the strength values are decayed by a fixed proportion per unit time (i.e., the central processor determines from the signals received from the transceivers the time the identification codes were received, by which transceivers, and the durations of receipt of the same identification code by each transceiver. Thus, one skilled in the art would unhesitatingly conceptualize that as the central processor receives new information, previously received information (as related to signal strength) is being decayed or decreases as related to time of receipt) (see col. 2, lines 27-31).

Regarding claim 10, Kabala discloses a method (see claim 1 rejection) wherein multiple strength values are associated with each marker or marker aggregation (i.e., when each attendee walks or attends different booths of the trade show, transceivers in each booth receives the identification code of the badge carried by the attendee. The identification information, along with the transceivers' own identification codes, and the signal strength of the signals received

from the badges, are forwarded by the transceivers to the central processor) (see col. 4, lines 52-59), step (b) involving decaying these multiple strength values at different rates whereby to produce multiple current strength values for each stored marker or marker aggregation (i.e., the transceivers send the signal strength received from the badge transmissions. If multiple transceivers report receiving the same badge ID code, the signal strength indication could be used to better discriminate the location of the attendee. Thus, as new attendee walks to a booth, signal strength information is collected from the attendee. And, as new information is collected, previously stored signal strength information is being decayed at different rates (as related to time of receipt)) (see col. 5, lines 53-57); step (c) comprising providing multiple types of information with the current strength values used when deriving a said information being dependent on its type (see abstract and col. 7, lines 63-67).

Regarding claim 11, Kabala discloses a method wherein at least some of said markers are deposited in step (a) with respective indicators as to whether or not the strength of the marker is to be decayed in step (b) (i.e., the transceivers send the signal strength received from the badge transmissions. If multiple transceivers report receiving the same badge ID code, the signal strength indication could be used to better discriminate the location of the attendee. Thus, the signal strength indication is used to inform the central processor of the time the information was received so as to replace the information as new information is being received) (see col. 5, lines 53-57); step (b) further comprising, for a said marker deposited with a said indicator, checking said indicator and decaying or not decaying the strength of the marker accordingly (i.e., if the signal strength indicator is used (by the central processor) to better discriminate the location of

the attendee, the central processor inherently checks the signal strength indication accordingly) (see col. 5, lines 53-57).

Regarding claim 12, Kabala discloses a method (see claim 1 rejection) wherein said virtual markers are deposited automatically at one of: predetermined intervals of time (see col. 5, lines 1-5).

Regarding claim 13, Kabala discloses a method (see claim 1 rejection) wherein the said virtual markers deposited in respect of each user are deposited by a mobile device carried by the user (i.e., portable wireless transmitters for transmitting identification code) (see abstract).

Regarding claim 14, Kabala discloses a method (see claim 13 rejection) wherein the virtual markers are stored in a central system (i.e., the system comprises memory for storing a list of the wireless transmitters, its identification code) (see col. 3, lines 13-16).

Regarding claim 15, Kabala discloses a method (see claim 1 rejection) wherein the said virtual markers are deposited and stored by an infrastructure system that monitors the locations of the users (i.e., central processor) (see abstract).

Regarding claim 16, Kabala discloses a method (see claim 1 rejection) wherein in step (a) the virtual markers deposited in respect of a first said user have associated data indicative of the user concerned and are individually stored (see col. 5, lines 50-55), step (c) involving providing information about the path taken by the first user by identifying the virtual markers associated with that user and using the relative strength values of the markers to determine the direction of progression of the user concerned along said path (i.e., when each attendee walks or attends different booths of the trade show, transceivers in each booth receives identification code of the badge carried by the attendee. The identification information, the signal strength of the signals

received from the badges, are forwarded by the transceivers to the central processor to process and sort the information into which of the transceivers were visited by the badge) (see fig. 1, col. 4, lines 52-63).

Regarding claim 23, Kabala discloses a method (see claim 1 rejection) wherein in step (a) a said virtual marker is deposited whenever a said user visits a location corresponding to a feature of interest in the space (see col. 5, lines 50-55), step (c) involving using the current-strength data of feature-related marker aggregations to provide information about the popularity of the features concerned (see fig. 6, col. 9, lines 18-22).

Regarding claim 24, Kabala discloses a method (see claim 1 rejection) wherein in step (a) a said virtual marker is deposited upon a said user requesting, whilst at a location corresponding to a feature of interest in the space, to be presented with a media item concerning that feature (i.e., when each attendee walks or attends different booths of the trade show, transceivers in each booth receives identification code of the badge carried by the attendee. The identification information, the signal strength of the signals received from the badges, are forwarded by the transceivers to the central processor to process and sort the information into which of the transceivers were visited by the badge. Thus, when the attendee attends a booth, the attendee inherently requests information related to that booth) (see fig. 1, col. 4, lines 52-63); step (c) involving using the current-strength data of feature-related marker aggregations to provide information about the popularity of the features concerned (see fig. 6, col. 9, lines 18-22).

Regarding claim 25, Kabala discloses a method (see claim 1 rejection) wherein step (c) is effected for a further user moving through the space with said information being provided to that user (i.e., when attendee moves to another booth, the corresponding transceiver in that booth will

pick up its badge ID signal and will be seen by central processor when the respective transceiver is interrogated) (see col. 6, lines 13-22).

Regarding claim 26, Kabala discloses an apparatus for providing information about a real-world space, the apparatus comprising: a first arrangement arranged to deposit and store virtual markers to indicate associated locations visited by each of multiple users in the space (see fig. 1, col. 4, lines 52-63); a second arrangement arranged to decay with time the strength values associated with the stored markers, either taken in location-dependent aggregations or individually (i.e., the central processor retrieves the information entered by operators when the attendees registered for the show to archive a list having identity of the attendees, the places of booths visited (location of the booth), the times and duration of the visits) (see fig. 1, col. 4, lines 63-67); and a third arrangement arranged to use data about the current strength of the stored markers, either in aggregation or individually, to provide information relevant to use of the space (see col. 7, lines 63-67).

Regarding claim 27, Kabala discloses an apparatus (see claim 26 rejection) wherein the first arrangement is arranged to store the virtual markers individually and the second arrangement is arranged to individually decay the strength values of the markers individually (i.e., the transceivers in each booth received (and inherently stored) the signal strength of the signals received from the badges (col. 4, lines 53-59), the third arrangement being arranged to aggregate, on a location dependent basis, the current strength values of the individual markers for use as said data (see col. 7, lines 63-67).

Regarding claim 28, Kabala discloses an apparatus (see claim 26 rejection) wherein the first arrangement is arranged to aggregate, on a location-dependent basis, each newly-deposited

virtual marker with previously-deposited virtual markers by having its initial strength value aggregated with an existing aggregated strength value, if any, for the previously-deposited markers associated with the same location as the newly-deposited marker, this aggregation constituting, or being effected at the same time as, storage of the newly-deposited marker (i.e., the booths 180 and 190 each has multiple transceivers disposed in respective booths to better discriminate visits by show attendees to different products displayed at their booths. For example, at booth 180 transceivers 180 to 184 are used to cover four different products. As such, when the attendees view a product, he typically faces the product and transmissions from his badge on the name tag are received by the respective transceiver disposed proximal to that product. The transceivers send the signal strength received from the badge transmissions. If multiple transceivers report receiving the same badge ID code, the signal strength indication could be used to better discriminate the location of the attendee) (see col. 5, lines 40-57); the second arrangement being arranged to decay the aggregated strength values (see col. 4, lines 57-59).

Regarding claim 29, Kabala discloses an apparatus (see claim 27 rejection) wherein the first arrangement comprises a plurality of storage location cells that correspond to respective areas of said space (i.e., a plurality of transceivers modules cover different areas) (see fig. 2, col. 7, lines 22-24), the first arrangement being arranged to store and aggregate each deposited marker by having its strength value added to an existing aggregated strength value, if any, stored in the location cell that corresponds to the area covering the location associated with the marker (i.e., the transceivers in each booth received the signal strength of the signals received from the badges (col. 4, lines 53-59); also, the portable transceivers collect the identification code, which

includes the signal strength, of the attendees that are attending the booth of the trade show (see abstract)).

Regarding claim 30, Kabala discloses an apparatus (see claim 29 rejection) wherein the first arrangement is arranged, when storing and aggregating a said marker, not only to increase the aggregated strength value of the corresponding location cell by the strength value of the marker, but also to increase by a lesser amount the aggregated strength value of at least one location cell covering a said area adjacent to the area covering the location associated with the marker (i.e., the signal strength information is used to decipher which of the neighboring transceivers received a stronger transmission from the same badge. Central processor interprets the stronger signal strength level information as the closer of the two transceivers to the attendee) (see col. 5, lines 18-21).

Regarding claim 31, Kabala discloses an apparatus (see claim 26 rejection) wherein the second arrangement is arranged to decay said strength values independently of the third arrangement (i.e., signal strength of the signals received from the badges are forwarded by the transceivers to the central processor) (see col. 4, lines 57-59). And, the identification codes are forwarded to a central processor to determine and list the places visited and times of the visits (see abstract). Thus, whether or not the virtual markers strength decay or decrease would have no effect on the identification being collected to provide information about the use of the space. Regarding claim 32, Kabala discloses an apparatus (see claim 26 rejection) wherein the second arrangement is arranged to decay said strength values as a preliminary to the third arrangement using the data on the current strength values (i.e., signal strength of the signals received from the badges are forwarded by the transceivers to the central processor) (see col. 4, lines 57-59). And,

the identification codes are forwarded to a central processor to determine and list the places visited and times of the visits (see abstract). Thus, one skilled in the art would immediately envision that as new information is being collected, old information is being replaced by the new acquired virtual markers information, which will cause a decay or decrease in the previously acquired information, which in turn will cause the new information acquired from the virtual markers to be used in providing information about the used of the space.

Regarding claim 33, Kabala discloses an apparatus (see claim 26 rejection) wherein the second arrangement is arranged to decay said strength values by a fixed amount per unit time (i.e., the central processor determines from the signals received from the transceivers the time the identification codes were received, by which transceivers, and the durations of receipt of the same identification code by each transceiver. Thus, one skilled in the art would unhesitatingly conceptualize that as the central processor receives new information, previously received information (as related to signal strength) is being decayed or decreases as related to time of receipt) (see col. 2, lines 27-31).

Regarding claim 34, Kabala discloses an apparatus (see claim 26 rejection) wherein the second arrangement is arranged to decay said strength values by a fixed proportion per unit time (i.e., the central processor determines from the signals received from the transceivers the time the identification codes were received, by which transceivers, and the durations of receipt of the same identification code by each transceiver. Thus, one skilled in the art would unhesitatingly conceptualize that as the central processor receives new information, previously received information (as related to signal strength) is being decayed or decreases as related to time of receipt) (see col. 2, lines 27-31).

Regarding claim 35, Kabala discloses an apparatus (see claim 26 rejection) wherein the first arrangement is arranged to associate multiple strength values with each marker or marker aggregation (i.e., when each attendee walks or attends different booths of the trade show, transceivers in each booth receives the identification code of the badge carried by the attendee. The identification information, along with the transceivers' own identification codes, and the signal strength of the signals received from the badges, are forwarded by the transceivers to the central processor) (see col. 4, lines 52-59), the second arrangement being arranged to decay these multiple strength values at different rates whereby to produce multiple current strength values for each stored marker or marker aggregation (i.e., the transceivers send the signal strength received from the badge transmissions. If multiple transceivers report receiving the same badge ID code, the signal strength indication could be used to better discriminate the location of the attendee. Thus, as new attendee walks to a booth, signal strength information is collected from the attendee. And, as new information is collected, previously stored signal strength information is being decayed at different rates (as related to time of receipt)) (see col. 5, lines 53-57), and the third arrangement being arranged to provide multiple types of information with the current strength values used when deriving a said information being dependent on its type (see abstract and col. 7, lines 63-67).

Regarding claim 36, Kabala discloses an apparatus (see claim 26 rejection) wherein the first arrangement is arranged to cause at least some of said markers to be deposited with respective indicators as to whether or not the strength of the marker is to be decayed (i.e., the transceivers send the signal strength received from the badge transmissions. If multiple transceivers report receiving the same badge ID code, the signal strength indication could be

used to better discriminate the location of the attendee. Thus, the signal strength indication is used to inform the central processor of the time the information was received so as to replace the information as new information is being received) (see col. 5, lines 53-57); the second arrangement being further arranged, for a said marker deposited with a said indicator, to check said indicator and to decay or not decay the strength of the marker accordingly (i.e., if the signal strength indicator is used (by the central processor) to better discriminate the location of the attendee, the central processor inherently checks the signal strength indication accordingly) (see col. 5, lines 53-57).

Regarding claim 37, Kabala discloses an apparatus (see claim 26 rejection) wherein the first arrangement comprises mobile devices intended to be carried by said multiple users, each mobile device being arranged to deposit said virtual markers in respect of a said user carrying the device (i.e., portable wireless transmitters for transmitting identification code) (see abstract).

Regarding claim 38, Kabala discloses an apparatus (see claim 37 rejection) wherein the first arrangement further comprises a central system for storing the virtual markers deposited by the mobile devices (i.e., the system comprises memory for storing a list of the wireless transmitters, its identification code) (see col. 3, lines 13-16).

Regarding claim 39, Kabala discloses an apparatus (see claim 26 rejection) wherein the first arrangement comprises an infrastructure system arranged to monitors the locations of the users and to deposit and store said virtual markers (i.e., central processor) (see abstract).

Regarding claim 40, Kabala discloses an apparatus (see claim 26 rejection) wherein the first arrangement is arranged to deposit and individually store, in respect of a first said user, virtual markers with associated data indicative of the user concerned (see col. 5, lines 50-55), the

third arrangement being arranged to provide information about the path taken by the first user by identifying the virtual markers associated with that user and using the relative strength values of the markers to determine the direction of progression of the user concerned along said path (i.e., when each attendee walks or attends different booths of the trade show, transceivers in each booth receives identification code of the badge carried by the attendee. The identification information, the signal strength of the signals received from the badges, are forwarded by the transceivers to the central processor to process and sort the information into which of the transceivers were visited by the badge) (see fig. 1, col. 4, lines 52-63).

Regarding claim 47, Kabala discloses an apparatus (see claim 26 rejection) wherein the first arrangement is arranged to deposit a said virtual marker whenever a said user visits a location corresponding to an item of interest (see col. 5, lines 50-55), the third arrangement being arranged to use the current-strength data of feature-related marker aggregations to provide information about the popularity of items of interest in said space (see fig. 6, col. 9, lines 18-22).

Regarding claim 48, Kabala discloses an apparatus (see claim 26 rejection) wherein the first arrangement is arranged to deposit a said virtual marker upon determining that a said user is at a location corresponding to a feature of interest in the space and has requested to be presented with a media item concerning that feature (i.e., when each attendee walks or attends different booths of the trade show, transceivers in each booth receives identification code of the badge carried by the attendee. The identification information, the signal strength of the signals received from the badges, are forwarded by the transceivers to the central processor to process and sort the information into which of the transceivers were visited by the badge. Thus, when the attendee attends a booth, the attendee inherently requests information related to that booth) (see fig. 1, col.

4, lines 52-63), the third arrangement being arranged to use the current-strength data of feature-related marker aggregations to provide information about the popularity of the features concerned (see fig. 6, col. 9, lines 18-22).

Regarding claim 49, Kabala discloses an apparatus (see claim 26 rejection) wherein the third arrangement comprises a mobile device for enabling a further user in said space to request and be presented with said information (i.e., when attendee moves to another booth, the corresponding transceiver in that booth will pick up its badge ID signal and will be seen by central processor when the respective transceiver is interrogated) (see col. 6, lines 13-22).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 17 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kabala in view of Dempsey, Pub. No. US 20020165731.

Regarding claim 17, Kabala discloses a method as described above (see claim 1 rejection).

Although Kabala discloses a method as described, Kabala does not specifically disclose a method wherein step (c) comprises presenting, as said information, an image of a virtual

landscape defined by the relative strengths of location-dependent marker aggregations mapped to a representation of the space.

However, Dempsey discloses a method wherein a location-determining module sends the current location of the attendee to the attendee display location where it is displayed on a map of the tradeshow floor (see page 5, paragraph 30).

Therefore, it would have been obvious to one of ordinary skill in the art to combine both teachings to arrive at the claimed invention. A motivation for doing so would have been to have a method capable of determining the current location of a tradeshow attendee (see page 5, paragraph 30).

Regarding claim 41, Kabala discloses an apparatus as described above (see claim 26 rejection).

Although kabala discloses an apparatus as described Kabala does not specifically discloses an apparatus wherein the third arrangement is arranged to present, as said information, an image of a virtual landscape defined by the relative strengths of location-dependent marker aggregations mapped to a representation of the space.

However, Dempsey discloses an apparatus wherein a location-determining module sends the current location of the attendee to the attendee display location where it is displayed on a map of the tradeshow floor (see page 5, paragraph 30).

Therefore, it would have been obvious to one of ordinary skill in the art to combine both teachings to arrive at the claimed invention. A motivation for doing so would have been to have a method capable of determining the current location of a tradeshow attendee (see page 5, paragraph 30).

6. Claims 18-22, 42-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kabala in view of Chu et al. (Chu) Pub. No. US 20020174021.

Regarding claims 18, Kabala discloses a method as described above (see claim 1 rejection).

Although Kabala discloses a method for collecting location data within a facility (see col. 2, lines 42-43) wherein the information comprises information about a path through the space (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), Kabala does not specifically disclose a method wherein in step (c) said information comprises information about a path through the space, this information being derived by determining a path that follows ridges in a virtual landscape defined by the relative strengths of location-dependent aggregations of markers.

However, Chu discloses a method wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine both arts to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 19, Kabala discloses a method as described above (see claim 1 rejection).

Although Kabala discloses a method for collecting location data within a facility (see col. 2, lines 42-43) wherein the information comprises information about a path through the space (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), Kabala does not specifically disclose a method wherein in step (c) said information comprises information about a path through the space, this information being derived by determining a path that follows troughs in a virtual landscape defined by the relative strengths of location-dependent aggregations of markers.

However, Chu discloses a method wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine both arts to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 20, Kabala discloses a method as described above (see claim 1 rejection).

Although Kabala discloses a method for collecting location data within a facility (see col. 2, lines 42-43) wherein the information comprises information about a path through the space

(i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), Kabala does not specifically disclose a method wherein in step (c) said information comprises information about a path through the space, this information being derived by determining a path that avoids ridges in a virtual landscape defined by the relative strengths of location-dependent aggregations of markers.

However, Chu discloses a method wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine both arts to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 21, Kabala discloses a method as described above (see claim 1 rejection).

Although Kabala discloses a method for collecting location data within a facility (see col. 2, lines 42-43) wherein the information comprises information about a path through the space (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), wherein in step (c) said information comprises information about a path through the space, this information being derived by determining a path that avoids troughs in a virtual landscape defined by the relative strengths of location-dependent aggregations of markers.

However, Chu discloses a method wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine both arts to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 22, Kabala discloses a method as described above (see claim 1 rejection).

Although Kabala discloses a method as described above, Kabala does not specifically disclose a method wherein step (c) involves using the current-strength data to predict a next location for a further user moving through the space having regard to that user's current location, this predicted next location then being used to provide to a mobile device of the further user, as said information, either the identify of media items associated with that predicted next location or the items themselves.

However, Chu discloses a method wherein a shopping path is recomputed using the user current location as a starting point, wherein the computed list anticipates the user next location for purchasing or identifying a specific item (see page 6, paragraph 59).

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to combine both arts to arrive at the claimed invention. A motivation for doing so would have been to provide to the user updated information as the user move through the facility.

Regarding claim 42, Kabala discloses an apparatus as described above (see claim 26 rejection).

Although kabala discloses an apparatus for collecting location data within a facility (see col. 2, lines 42-43) wherein the third arrangement is arranged to derive information about a path through the space by using the marker aggregation data (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), Kabala does not specifically disclose an apparatus wherein the third arrangement is arranged to derive information about a path through the space by determining a path that follows ridges in a virtual landscape defined by the relative strengths of location-dependent aggregations of markers.

However, Chu discloses an apparatus wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine both arts to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 43, Kabala discloses an apparatus as described above (see claim 26 rejection).

Although kabala discloses an apparatus for collecting location data within a facility (see col. 2, lines 42-43) wherein the third arrangement is arranged to derive information about a path through the space by using the marker aggregation data (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), Kabala does not specifically disclose an apparatus wherein the third arrangement is arranged to derive information about a path through the space by determining a path that follows troughs in a virtual landscape defined by the relative strengths of location-dependent aggregations of markers.

However, Chu discloses an apparatus wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine both arts to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 44, Kabala discloses an apparatus as described above (see claim 26 rejection).

Although kabala discloses an apparatus for collecting location data within a facility (see col. 2, lines 42-43) wherein the third arrangement is arranged to derive information about a path

through the space by using the marker aggregation data (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), wherein the third arrangement is arranged to derive information about a path through the space by determining a path that avoids ridges in a virtual landscape defined by the relative strengths of location-dependent aggregations of markers.

However, Chu discloses an apparatus wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine both arts to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 45, Kabala discloses an apparatus as described above (see claim 26 rejection).

Although kabala discloses an apparatus for collecting location data within a facility (see col. 2, lines 42-43) wherein the third arrangement is arranged to derive information about a path through the space by using the marker aggregation data (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), Kabala does not specifically disclose an apparatus, wherein the third arrangement is arranged to derive information about a path through the space by determining a path that avoids troughs in a virtual landscape defined by the relative

strengths of location-dependent aggregations of markers.

However, Chu discloses an apparatus wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine both arts to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 46, Kabala discloses an apparatus as described above (see claim 26 rejection).

Although Kabala discloses an apparatus as described above, Kabala does not specifically disclose a method wherein the third arrangement is arranged to use the current-strength data to predict to predict a next location for a further user moving through the space having regard to that user's current location, the third arrangement being further arranged to use the predicted next location to provide to a mobile device of the further user, as said information, either the identify of media items associated with that predicted next location or the items themselves.

However, Chu discloses an apparatus wherein a shopping path is recomputed using the user current location as a starting point, wherein the computed list anticipates the user next location for purchasing or identifying a specific item (see page 6, paragraph 59).

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to combine both arts to arrive at the claimed invention. A motivation for doing so would have been to provide to the user updated information as the user move through the facility.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is 703-605-4312. The examiner can normally be reached on (571) 272-7799.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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06/25/2005

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